Federal Systems Integration Market

Jim Kerrigan
Director, Federal Program
INPUT, INC.

March, 1989

Overview

- Market Characteristics
- Market Participation
- Respondent Views
- Observations

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Federal Market Pressures

- Improve Information Technology Support
- Improve Productivity
- Overcome Staff Shortages
- Overcome Computer Obsolescence
- Share Implementation Risks

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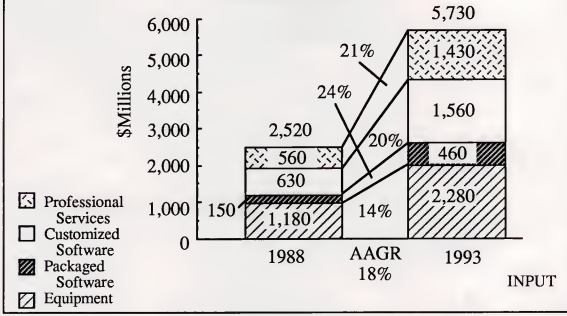
Federal Systems Integration Forecast
FY1988 - FY1993



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System Integration Opportunities by Type of Implementation, FY1988 - FY1993

Implementation	Agencies		
	Defense	Civilian	Total
Upgrade/Expansion	10	15	25
Replacement	3	3	6
New Start	7	10	17
Total	20	28	48

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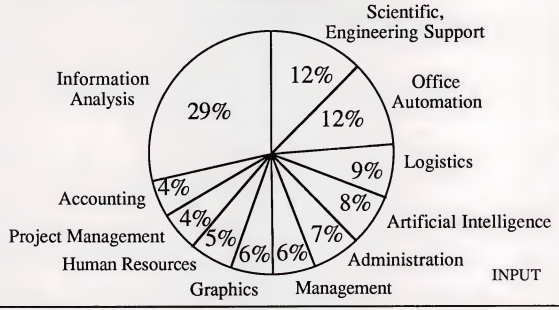
Federal Systems Integration Market by Type of Application, 1987-1992



Primary and secondary applications categorized.
Note: Figures do not add up to 100% due to rounding.

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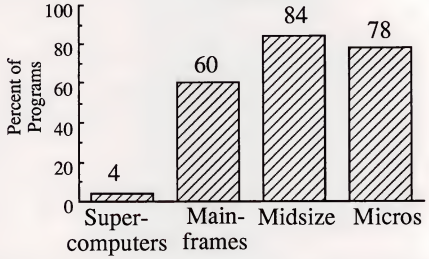
Distribution of Type of Target Hardware Systems for Systems Integration Programs FY1988 - FY1993



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Top Ten Systems Integration Vendors in the Federal ADP Market GFY 1988

Rank	Contractor
1	Electronic Data Systems
2	Computer Sciences Corporation
3	IBM
4	Unisys
5	Planning Research Corporation

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Top Ten Systems Integration Vendors in the Federal ADP Market GFY 1988

Rank	Contractor
6	Martin Marietta Data Systems
7	Federal Data Corporation
8	TRW
9	Digital Equipment Corporation
10	Boeing Computer Services

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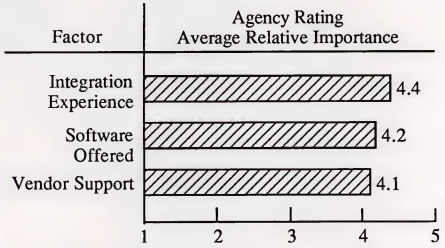
Importance of Systems Integration Contractor Performance Characteristics



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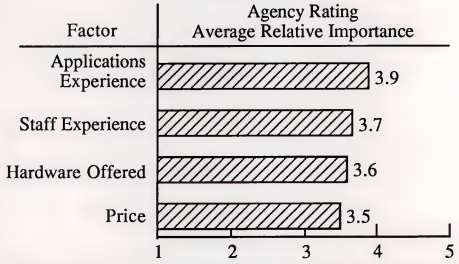
Importance of Systems Integration Contractor Performance Characteristics



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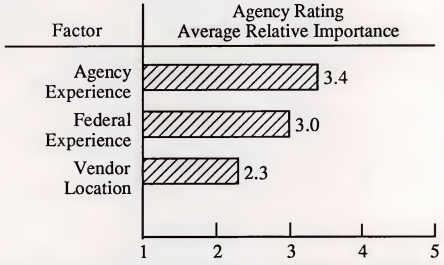
Importance of Systems Integration Contractor Performance Characteristics



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Selection Criteria Significance for Systems Integration Contract Award

Agency Rank	Criterion	Vendor Rank
1	Technical Solution	2
2	Life-Cycle Cost	1
3	Risk Containment	3
4	Contract Type	5
5	Initial Cost	4
6	Project Management	6

Note: Ranking based on average ratings by agency respondents

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Agency Suggestions for Improvements to Vendor Services

Suggestion	Rank*
Increase Adherence to Industry Standards	1
Increase Planning and Management Skills	2
Increase Level of Experience for Staff	3

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*Rank based on frequency of mention by respondents

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Agency Suggestions for Improvements to Vendor Services

Suggestion	Rank*
Increase Cooperation and Responsiveness to Agency Needs	4
Increase Availability of Compatible Software	5

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*Rank based on frequency of mention by respondents

NOTES:

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Suggested Improvements to Products and Services

Suggestion	Rank*
Improve in Adaptation of Standards	1
Improve in Compatibility and Interoperability of Systems	2

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*Rank based on frequency of mention by respondents

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Suggested Improvements to Products and Services

Suggestion	Rank*
Improve Software Program Efficiency and Visibility	3
Improve Productivity and Reliability	4
Improve Management and Reporting Capabilities	5

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*Rank based on frequency of mention by respondents

NOTES:

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Technological Factors That Could Increase Agency Utilization of Information Processing Resources

Factor	Rank*
Increased Microcomputer Availability	1
Expanded Networks	2
Expert Systems/Artificial Intelligence	3
Distributed Processing Networks	4
Intersystem Compatibility	5
Software Standardization	6

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*Rank based on frequency of mention by respondents

NOTES:

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Nontechnical Factors That Impede Increased Systems Acquisition

Factor	Rank*
Budgetary Limitations	1
Costs Associated with Acquisition	2
Regulations Imposed on Agency	3
Internal Agreement on Requirements	4
Availability of Skilled Staff	5

*Rank based on frequency of mention by respondents

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Vendor Views of Agency SI Opportunities FY1988 - FY1993

Agency Type	Opportunities*		
	Increasing	Decreasing	Remaining the Same
DoD	25.0	33.3	41.7
Civil	72.7	0.0	27.3

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*Based on percent of respondents in each category

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SI Market Differences: Federal versus Commercial FY1988 - FY1993

Market Differences—Federal

- Complex, Lengthy Procurements
- Bureaucratic Environment
- Large, Complex Projects
- Long-Term Development Cycle
- Little Client Involvement
- Lower Profit Margins
- High Proposal Costs
- Leads in CBD

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SI Market Differences: Federal versus Commercial FY1988 - FY1993

Market Differences—Commercial

- Simpler, Shorter Purchasing Process
- Smaller Projects
- Shorter-Term Project Implementation
- In-House Technical Expertise
- High Profit Potential
- Unique Terms and Conditions
- Need for Leads Prospects

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Critical Systems Integration Success Factors

- Timely Software Delivery
- Proper Management of Pilot
- Technology Refreshments
- Attention to Support Services
- Upgradability

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Recommendations

- Process Understanding
- Project Management Talent
- Proper Teaming Selection and Management
- Proper Focus of Marketing Efforts
- Empathy with Customer Problems

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Fax (703) 847-6872

JAMES F. KERRIGAN, CDP
Director,
Federal Program

Feb 3,

Sheila,

Here are the graphics for a conference I am doing in March. The completed exhibits came from GSI & This work must be charged to GMKT51. Please make up a new set of exhibits, for submission to the sponsor, by Feb 15. Then, please make up 35 mm slides, and get them to me by Mar 6. Thanks a lot.

Jim

GMKT51

FEDERAL SYSTEMS INTEGRATION MARKET

JIM KERRIGAN
DIRECTOR, FEDERAL PROGRAM
INPUT, INC.

MARCH, 1989

OVERVIEW

- MARKET CHARACTERISTICS
- MARKET PARTICIPATION
- RESPONDENT VIEWS
- OBSERVATIONS

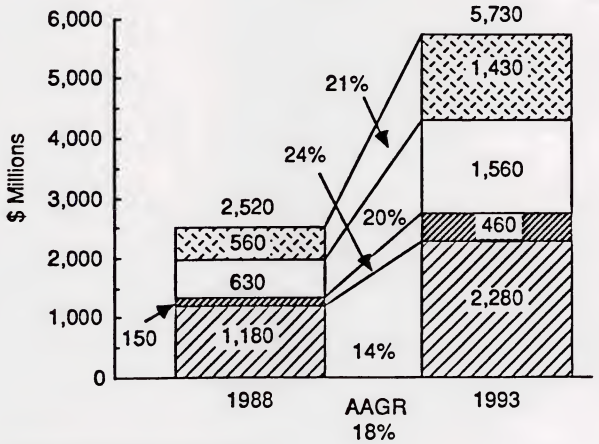
I-1

FEDERAL MARKET PRESSURES

- Improve Information Technology Support
- Improve Productivity
- Overcome Staff Shortages
- Overcome Computer Obsolescence
- Share Implementation Risks

II-2

FEDERAL SYSTEMS INTEGRATION FORECAST
FY1988 - FY1993



- AS IS FOR HC
- FOR SLIDE USE ($B) TOTALS ONLY
ONLY TOTAL AAGR

II-4

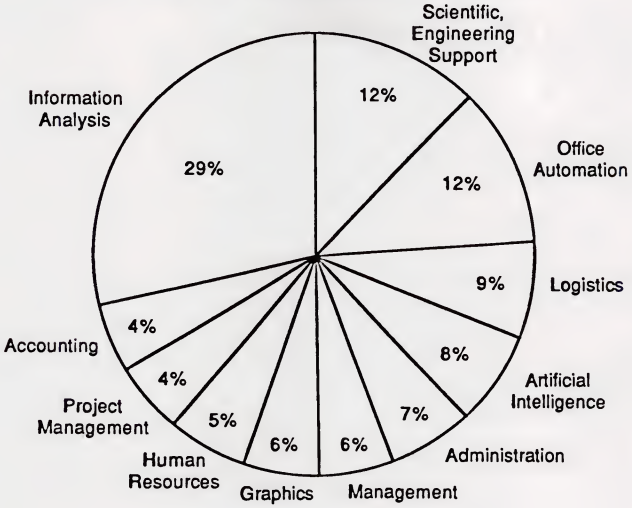
SYSTEM INTEGRATION OPPORTUNITIES BY TYPE OF IMPLEMENTATION, FY1988 - FY1993

Implementation	Agencies		
	Defense	Civilian	Total
Upgrade/Expansion	10	15	25
Replacement	3	3	6
New Start	7	10	17
Total	20	28	48

AS IS ON HC

III-3

FEDERAL SYSTEMS INTEGRATION MARKET BY TYPE OF APPLICATION, 1987-1992



Primary and secondary applications categorized.

Note: Figures do not add up to 100% due to rounding.

- HC AS IS
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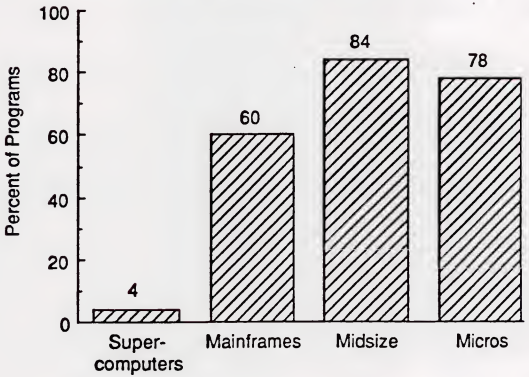
DISTRIBUTION OF TYPE OF TARGET HARDWARE SYSTEMS FOR SYSTEMS INTEGRATION PROGRAMS FY1988 - FY1993



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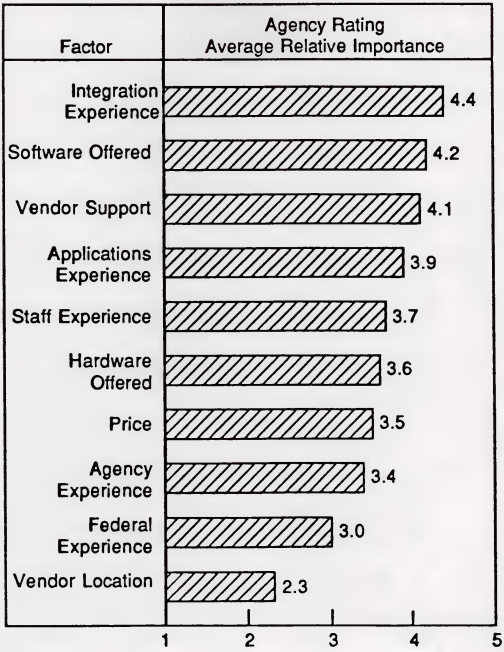
V-1

TOP TEN SYSTEMS INTEGRATION VENDORS IN THE FEDERAL ADP MARKET GFY 1988

Rank	Contractor
1	Electronic Data Systems
2	Computer Sciences Corporation
3	IBM
4	UNISYS
5	Planning Research Corporation
6	Martin Marietta Data Systems
7	Federal Data Corporation
8	TRW
9	Digital Equipment Corporation
10	Boeing Computer Services

IV-13

IMPORTANCE OF SYSTEMS INTEGRATION CONTRACTOR PERFORMANCE CHARACTERISTICS



TRY FOR 3 SLIDES

Consider

16

IV-12

SELECTION CRITERIA SIGNIFICANCE FOR SYSTEMS INTEGRATION CONTRACT AWARD

Agency Rank	Criterion	Vendor Rank
1	Technical Solution	2
2	Life-Cycle Cost	1
3	Risk Containment	3
4	Contract Type	5
5	Initial Cost	4
6	Project Management	6

Note: Ranking based on average ratings by agency respondents

AGENCY SUGGESTIONS FOR IMPROVEMENTS TO VENDOR SERVICES

Suggestion	Rank*
Increase Adherence to Industry Standards	1
Increase Planning and Management Skills	2
Increase Level of Experience for Staff	3
Increase Cooperation and Responsiveness to Agency Needs	4
Increase Availability of Compatible Software	5

*Rank based on frequency of mention by respondents

V-17

VENDOR

SUGGESTED IMPROVEMENTS TO PRODUCTS AND SERVICES

Suggestion	Rank*
Improve in Adaptation of Standards	1
Improve in Compatibility and Interoperability of Systems	2
Improve Software Program Efficiency and Visibility	3
Improve Productivity and Reliability	4
Improve Management and Reporting Capabilities	5

*Rank based on frequency of mention by respondents

IV-15

TECHNOLOGICAL FACTORS THAT COULD INCREASE AGENCY UTILIZATION OF INFORMATION PROCESSING RESOURCES

Factor	Rank*
Increased Microcomputer Availability	1
Expanded Networks	2
Expert Systems/Artificial Intelligence	3
Distributed Processing Networks	4
Intersystem Compatibility	5
Software Standardization	6

*Rank based on frequency of mention by respondents

NONTECHNICAL FACTORS THAT IMPEDE INCREASED SYSTEMS ACQUISITION

for slide

Factor	Rank*
Budgetary Limitations	1
Costs Associated with Acquisition	2
Regulations Imposed on Agency	3
Internal Agreement on Requirements	4
Availability of Skilled Staff	5

*Rank based on frequency of mention by respondents

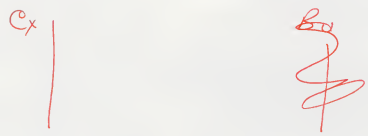
V-6

VENDOR VIEWS OF AGENCY SI OPPORTUNITIES FY1988 - FY1993

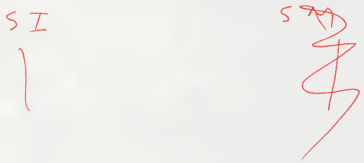
Agency Type	Opportunities*		
	Increasing	Decreasing	Remaining the Same
DoD	25.0	33.3	41.7
Civil	72.7	0.0	27.3

*Based on percent of respondents in each category

SI CHARACTERISTICS:
FEDERAL



SI CH
COMMERCIAL



V-8

SI MARKET DIFFERENCES: FEDERAL VERSUS COMMERCIAL FY1988 - FY1993

Market Differences	
Federal	Commercial
Complex, Lengthy Procurements	Simpler, Shorter Purchasing Process
Bureaucratic Environment	Smaller Projects
Large, Complex Projects	Shorter-Term Project Implementation
Long-Term Development Cycle	In-House Technical Expertise
Little Client Involvement	High Profit Potential
Lower Profit Margins	Unique Terms and Conditions
High Proposal Costs	Need for Leads Prospects
Leads in CBD	

II-6

CRITICAL SYSTEMS INTEGRATION SUCCESS FACTORS

- Timely Software Delivery
- Proper Management of Pilot
- Technology Refreshments
- Attention to Support Services
- Upgradability

I-9

RECOMMENDATIONS

- Process Understanding
- Project Management Talent
- Proper Teaming Selection and Management
- Proper Focus of Marketing Efforts
- Empathy with Customer Problems